

Please replace the paragraph on page 8, starting on line 27 with the following:

--The transition portion 614 can be formed by, for example, a grinding tool or a drill bit, etc.

a4 The contour of the transition portion 614 can be described by the shape of each third transverse cross-sectional area and the rate that the third transverse cross-sectional area decreases throughout the transition portion 614. The third transverse cross-sectional area can decrease at a second rate from the second area of the second transverse cross-sectional area to the first transverse cross-sectional area of the orifice portion 608. As discussed above, this rate may be constant or variable. In the case where the shape of each third transverse cross-sectional area is a circle having a diameter that decreases at a constant rate, as is illustrated in Figure 2, the shape of the transition portion 614 is that of a truncated right cone with an included angle 626. Of course, different shapes for the transition portion 614 can be obtained by varying the shape of the second transverse cross-sectional areas or by varying the rate at which the second transverse cross-sectional areas change.

IN THE CLAIMS:

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Please cancel claims 1 and 5.

Please amend claims 2 and 6-8 as follows:

a5 2.(Amended) The method according to claim 7, wherein the sealing portion comprises a first conical section defining a first included angle, and the transition portion comprises a second conical section defining a second included angle, and wherein the first included angle is greater than the second included angle.

a6 6. (Amended) The method according to claim 7, wherein the grinding tool is driven in rotation about an axis of rotation.

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7. (Amended) A method of forming a fuel injector seat, the seat having an upstream face, a downstream face, and a passage extending along an axis between the upstream face and the downstream face, the method comprising:

forming within the passage an orifice portion proximate the downstream face and having a first transverse cross-sectional area relative to the axis;

forming within the passage a sealing portion proximate the upstream face and having a second transverse cross-sectional area relative to the axis that decreases at a first rate in a downstream direction from a first area to a second area;

determining a ratio of the first transverse cross-sectional area over the first area; and

a6
forming within the passage a transition portion when the ratio of the first transverse cross-sectional area over the first area exceeds a predetermined value, the transition portion being interposed between the orifice portion and the sealing portion and having a third transverse cross-sectional area relative to the axis that decreases at a second rate in the downstream direction from the second area to the first transverse cross-sectional area, wherein the forming of the sealing portion includes grinding with a tool that has a conical end with a vertex of the conical end disposed in the transition portion to provide a select finish on the sealing portion, the transition portion provides a volume receiving the vertex of the tool, the vertex being proximate to the axis of rotation.

8. (Amended) The method according to claim 7, wherein the select finish is less than 0.5 micrometers.